

# 2021 Water Quality Report for the Village of Elsie

Water Supply Serial Number: 2120

This report covers the drinking water quality for the Village of Elsie for the 2021 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2021. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (USEPA) and state standards.

Your water comes from 3 groundwater wells located at 123 W. Main St. & 329 Meadow Lane, each over 210 feet deep. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is moderate.

There are no significant sources of contamination in our water supply. We are making efforts to protect our sources by routine inspections of the area around the well heads for potential contamination sources.

If you would like to know more about this report, please contact: Shane Grinnell, Village of Elsie, 125 W. Main St. Elsie MI 48831, 989-862-4273, [manager@elsie.org](mailto:manager@elsie.org), [www.elsie.org](http://www.elsie.org).

**Contaminants and their presence in water:** Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (800-426-4791).

**Vulnerability of sub-populations:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems disorders, some elderly, and infants can be particularly at risk from infections. These people

should seek advice about drinking water from their health care providers. USEPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

**Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants that may be present in source water include:**

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.



To ensure that tap water is safe to drink, the USEPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

## Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2021 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2021. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old.

### Terms and abbreviations used below:

- Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- N/A: Not applicable
- ND: not detectable at testing limit
- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- ppt: parts per trillion or nanograms per liter
- pCi/l: picocuries per liter (a measure of radioactivity)
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Level 1 Assessment: A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

1 Monitoring Data for Regulated Contaminants

Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Arsenic (ppb)	10	0	.0043		2019	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)			.077				
Cadmium (ppm)			.0016				
Chromium (ppm)	2	2	.0032		2019	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nickle (ppm)			.0029				
Selenium (ppm)			.0043				
Nitrate (ppm)							
Well 1	10	10	.042		2021	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Well 8/9			.11				
Fluoride (ppm)	4	4	.4		2020	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium <sup>1</sup> (ppm)	N/A	N/A	110		2020	No	Erosion of natural deposits
TTHM Total Trihalomethanes (ppb)	80	N/A	2.2		2021	No	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	<1.0		2021	No	Byproduct of drinking water disinfection
Chlorine <sup>2</sup> (ppm)	4	4	.8	.21-1.61	2021	No	Water additive used to control microbes
Gross Alpha (pCi/L)	15	0	6.4		2020	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	4		2019	No	Erosion of natural deposits

<sup>1</sup> Sodium is not a regulated contaminant.

<sup>2</sup> The chlorine "Level Detected" was calculated using a running annual average.

Per- and polyfluoroalkyl substances (PFAS)									
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant		
Perfluorooctane sulfonic acid (PFOS) (ppt) Well #1	16	N/A	2		2021		Firefighting foam; Discharge from electroplating facilities; Discharge and waste from industrial facilities		
Inorganic Contaminant Subject to ALs	AL	MCLG	Your Water <sup>3</sup>	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant		
Lead (ppb)	15	0	0	0	2021	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits		
Copper (ppm)	1.3	1.3	.1	0.0-.2	2021	0	Corrosion of household plumbing systems; Erosion of natural deposits		

<sup>3</sup> Ninety (90) percent of the samples collected were at or below the level reported for our water.

## Additional Monitoring

Unregulated contaminants are those for which the USEPA has not established drinking water standards. Monitoring helps the USEPA determine where certain contaminants occur and whether regulation of those contaminants is needed.

Unregulated Contaminant Name	Average Level Detected	Range	Year Sampled	Comments
Chloride (ppm)	220		2020	Results of monitoring are available upon request
Hardness (ppm)	430		2020	Results of monitoring are available upon request
Iron (ppm)	.58		2020	Results of monitoring are available upon request
Sulfate (ppm)	88		2020	Results of monitoring are available upon request
Calcium (ppm)	142		2019	Results of monitoring are available upon request
Magnesium (ppm)	35		2019	Results of monitoring are available upon request

**Information about lead:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Elsie is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you have a lead service line, it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA's Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Our water supply has 0 lead service lines and 386 service lines of unknown material out of a total of 386 service lines.

### Monitoring and Reporting to the Michigan Department of Environment, Great Lakes, and Energy

**(EGLE) Requirements:** The State of Michigan and the USEPA require us to test our water on a regular basis to ensure its safety. In 2021, we received some violations related to our drinking water system. We will work to ensure that violations like these do not happen again in the future:

- A reporting violation for failing to collect chlorine residuals during the monitoring period of December 1, 2021, to December 31, 2021. We submitted our December chlorine residuals to the Department of Environment, Great Lakes, & Energy on June 22, 2022, which returned this reporting violation to compliance. The chlorine residual was well within limits set for health standards.

- A treatment technique violation for not having a certified operator beginning on January 15, 2021. We returned to compliance on May 31, 2022, the date that we hired a certified operator to oversee our drinking water system. A disinfectant is added to our water. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

- A monitoring/reporting violation for failing to collect a TTHM and HAA5 sample during the monitoring period of September 1, 2021, to September 30, 2021. We will be able to return to compliance by collecting a TTHM and HAA5 sample during September 2022.

- A monitoring/reporting violation for failing to collect a PFAS sample during the monitoring period of February 4, 2021, to December 31, 2021. We collected a PFAS sample on 6/24/21 to return this violation to compliance.

We will update this report annually and will keep you informed of any problems that may occur throughout the year as they happen. Copies are available at Village Hall, 125 W. Main St. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. The Village of Elsie Council Meetings are the second Tuesday of each month. Village Office Hours are Monday thru Friday 8:30 – 5:30. For more information about your water or the contents of this report, contact Shane Grinnell, 989-862-4273, or at [www.elsie.org](http://www.elsie.org). For more information about safe drinking water, visit the USEPA at <http://www.epa.gov/safewater>.

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**  
**Village of Elsie Failed to Obtain a Certified Operator**

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

The Safe Drinking Water Act requires us to obtain a certified operator who has the skills, knowledge and experience to maintain and operate our water system effectively. We do not have a properly certified operator and therefore cannot be sure that our water system is operated correctly. Beginning January 15, 2021, we have been without a certified operator and therefore cannot be sure of the quality of water during this time. The violation does not pose a threat to the quality of the supply's water.

**What should I do?**

There is nothing you need to do. You do not need to boil your water or take other corrective actions. Monitoring indicates no contaminants are in the water at levels above a state drinking water standard. However, we cannot be sure that our water system is operated correctly. If you have specific health concerns, consult your doctor.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours. Since January 2021, we had an operator running our system but his license had expired. Throughout this time period, we have continued to collect our required samples and all monitoring has showed results below the health standards.

**What is being done?**

We anticipate hiring or contracting with a certified operator by June 5, 2022.


For more information, please contact Shane Grinnell at 989-862-4273 ext 7 or [manager@elsie.org](mailto:manager@elsie.org).

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

**CERTIFICATION:**

WSSN: 02120

I certify that this water supply has fully complied with the public notification requirements in the Michigan Safe Drinking Water Act, 1976-PA 399, as amended, and the administrative rules.

 Operator-in-Charge 6-30-22  
Signature Title Date Distributed  
Reminder to water supplier: This notice / certification must be sent to the EGLE.

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### *Monitoring Requirements Not Met for the Village of Elsie*

The village of Elsie is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monitoring period of February 4, 2021, to September 30, 2021, we did not monitor for per- and polyfluoroalkyl substances (PFAS) and during the monitoring period of September 1, 2021, to September 30, 2021, we did not monitor for total trihalomethanes (TTHM) and haloacetic acids five (HAA5). Therefore, we cannot be sure of the quality of your drinking water during that time. The violations do not pose a threat to the quality of the supply's water.

What should I do? There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time. Even though this is not an emergency, as our customers, you have a right to know what happened and what we are doing to correct the situation.

The table below lists the contaminant we did not properly test for, how often we are supposed to sample for this contaminant, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date follow-up samples will be collected.

Contaminants	Required sampling frequency	Number of samples taken	Date samples should have been collected	Date samples will be collected by
PFAS <sup>1</sup>	Every Year	0	February 4, 2021 – September 30, 2021	June 30, 2022
TTHM and HAA5	Every Year	0	September 1, 2021 – September 30, 2021	September 1, 2022 – September 30, 2022

What happened? What is being done? We did not collect a PFAS sample or a TTHM and HAA5 sample during the required monitoring periods. We will collect our PFAS compliance sample as soon as possible, but no later than June 30, 2022. We will collect our TTHM and HAA5 sample during September 2022. Our staff is making every effort to assure this does not happen again.

For more information, please contact Mike Townsend, Operator-in-Charge, at 989-292-0282.

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

More information about your drinking water is available from the U.S. Environmental Protection Agency Office of Water home page at: <http://www.epa.gov/safewater/dwinfo.htm>. This notice is being sent to you by the village of Elsie.

<sup>1</sup>PFAS are tested by collecting one sample and analyzing that sample for all of the PFAS chemicals, which includes: hexafluoropropylene oxide dimer acid (HFPO-DA), perfluorobutane sulfonic acid (PFBS), perfluorohexane sulfonic acid (PFHxS), perfluorohexanoic acid (PFHxA), perfluorononanoic acid (PFNA), perfluorooctane sulfonic acid (PFOS), and perfluorooctanoic acid (PFOA).

#### CERTIFICATION:

WSSN: 02120

I certify that this water supply has fully complied with the public notification regulations in the Michigan Safe Drinking Water Act, 1976 PA 399, as amended, and the administrative rules.

Signature: 

Title: Operator-in-Charge

Date Distributed: 6-30-22